

Claims:

1. A reactor including a plurality of reaction zones divided by heat exchanger panels but in fluid communication via said panels, and forming thereby in succession a production flow path, said reactor comprising a vessel having a curved wall, and a plurality of heat exchanger panels arranged within said wall at an angle thereto such as to extend inwardly to the interior of the vessel, thereby defining between successive panels and said wall at least one reaction zone, and wherein baffles are provided within the reaction zone and arranged to extend from a heat exchanger surface to define a boundary for the reaction zone and to thereby impose a desired configuration upon said production flow path, whereby said flow path extends between a central part of the reactor to an outer peripheral part thereof.
2. A reactor according to claim 1, wherein the configuration of the flow path is that of a spiral.
3. A reactor according to claim 1, wherein the reactor vessel is made up of two concentric catalyst containment screens, between which the reaction zones are contained.
4. A reactor vessel according to claim 1, wherein the reactor vessel is of a cylindrical design, and said heat exchanger panels are arranged about a central point, to thereby define a plurality of sectors each containing at least one reaction zone.
5. A reactor according to claim 4, wherein each sector is divided into a plurality of reaction zones by baffles.
6. A reactor according to claim 5, wherein the baffles are arranged to extend from a heat exchanger surface to respectively define a boundary for each reaction zone.
7. A reactor according to claim 5, wherein the baffles are curved.
8. A reactor according to claim 5, wherein the baffles are straight.

9. A reactor according to claim 5, wherein the baffles are corrugated.
10. A reactor according to claim 4, wherein the heat exchanger panels are arranged radially about the longitudinal axis of the cylindrical reactor vessel.

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